

CLAIMS

1. A method for removing particles on semiconductor wafers, characterized by the fact that

 said method for removing particles adhered to the surface of semiconductor wafers is comprised of the following processing steps:

 a step in which the semiconductor wafers are dipped in a cleaning solution tank to which a cleaning solution is fed;

 and a step in which ultrasonic waves are fed into the aforementioned cleaning solution after the passage of a prescribed period of time since the time that the aforementioned semiconductor wafers are dipped in the aforementioned cleaning solution.

2. The method for removing particles on semiconductor wafers described in Claim 1 characterized by the fact that the aforementioned prescribed time is 20 sec or more.

3. The method for removing particles on semiconductor wafers described in Claim 1 characterized by the fact that the aforementioned prescribed time corresponds to a substitution ratio of the cleaning solution in the aforementioned cleaning solution tank of 0.4 or more.

4. The method for removing particles on semiconductor wafers described in Claim 2 characterized by the fact that the feeding time of the aforementioned ultrasonic waves is 400 sec or more.

5. The method for removing particles on semiconductor wafers described in Claim 4 characterized by the fact that the cleaning time for the aforementioned semiconductor wafers is 600 sec or more.

6. The method for removing particles on semiconductor wafers described in Claim 1, 2, 3, 4 or 5 characterized by the fact that the aforementioned cleaning solution is ultra-pure water.

7. The method for removing particles on semiconductor wafers described in Claim 1, 2, 3, 4 or 5 characterized by the fact that the aforementioned cleaning solution is hydrogen-enriched ultra-pure water.

8. The method for removing particles on semiconductor wafers described in Claim 7 characterized by the fact that the concentration of hydrogen in the aforementioned hydrogen-enriched ultra-pure water is in the range of 0.3-1.6 ppm.

9. The method for removing particles on semiconductor wafers described in Claim 1, 2, 3, 4, 5, 6, 7 or 8 characterized by the fact that the aforementioned step of cleaning semiconductor wafers ultrasonically is performed after the step of cleaning semiconductor wafers by means of a cleaning solution mainly comprising hydrogen fluoride.